

TO THE EDITOR: The article by White and Frank on aspects of a vegetarian diet is a thorough review of much of the positive side in vegetarianism, but it fails to address much of the negative side.^{1,2} Medical evidence indicates that a vegetarian diet poses a risk for young women, especially active women and athletes.

Numerous reports point out that women who fail to eat meat have a higher level of amenorrhea than their counterparts who eat meat.³⁻⁷ Athletic amenorrhea is known to lead to premature osteoporosis.⁸ Amenorrheic women who are active in competitive and recreational sports have a greater risk of injury than women who menstruate normally.⁹ Eating red meat can be a part of the solution to athletic amenorrhea.^{4,10}

As a psychiatrist, Dr White will appreciate the research by Gadpaille and co-workers, who suggest a link between athletic amenorrhea in runners and major affective disorders and eating disorders.¹¹ Of 13 amenorrheic runners studied, 12 (87%) were vegetarians. In this group with amenorrhea, 8 (62%) had diagnosable eating disorders and 3 (23%) had a major affective disorder. In 19 runners who were menstruating, there were only 3 (15%) vegetarians, no eating disorders, and no major affective disorders. Other psychiatric specialists caution against the overenthusiastic advocacy of a low-fat, meatless "healthy lifestyle" in vulnerable, adolescent girls.¹²

Although White and Frank's article did discuss minerals, it certainly glossed over the issue of iron in vegetarianism. I reported at the American College of Sports Medicine meeting of 1993 that a third of teenaged cross-country runners were iron deficient, as judged by serum ferritin levels.¹³ Those runners with low serum ferritin levels had an injury rate twice that of runners with serum ferritin levels of more than 24 µg per liter (24 ng per ml). Because iron deficiency is the leading nutritional deficit in this country, to encourage a diet that further contributes to iron deficiency makes little sense. Other consequences of iron deficiency were recently reviewed in this journal.¹⁴

Although the reviews cited state that a plant-based diet improves longevity, these studies are, in fact, somewhat equivocal.^{15,16} Female Seventh-Day Adventists who eat meat and strict vegetarian Adventists had no difference in their mortality rates.¹⁵ While males eating meat four to seven days a week had a 1.5 risk of increased mortality, the number for those eating meat one to three days per week was much smaller, and statistical significance was not reported.

In the large study quoted, there was no difference in all-cause mortality in Seventh-Day Adventists who ate foods low in fat, little cheese and eggs, no meat or milk, and those who did not trim fat, ate cheese and eggs at least three days a week, and had milk or meat more than one day a week.¹⁵

In a study of 11,000 customers of health food shops, there was no difference in all-cause mortality between vegetarians and nonvegetarians.¹⁷ A survey of diet and lifestyle determinants of mortality among German vegetarians revealed that vegetarians who occasionally ate

meat had a significantly lower mortality than those who were strict vegetarians.¹⁸ Even the recently advocated life-prolonging Mediterranean diet includes meat, chicken, and fish.

There are now an estimated 1.5 million adolescent competitive female athletes in the United States and more female athletes between ages 18 and 25 years. Although it is appropriate to review the vegetarian lifestyle, to substitute an espousal of vegetarian values for a balanced scientific article does patients and the medical community an injustice. It seems inappropriate for young women to sacrifice their bones, become anemic, develop eating disorders, and have injuries because they are "ecosensitive." We would never allow this to happen to our young men. First do no harm!

Nutrition "perfectionism" based on low-fat diets, animal rights, and ecosensitive issues and manifested by vegetarianism in young women must be countered with nutritional moderation. It seems preferable to eat meat, chicken, or fish on a daily basis, have a low fat intake, and, in fact, have a healthier lifestyle than the strict vegetarian.

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